

I. AMENDMENTS

Amendments to the Claims:

This listing of all pending claims (including withdrawn claims) will replace all prior versions, and listings, of claims in the application. Cancelled and not entered claims are indicated with claim number and status only. The claims show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Listing of Claims:

1.- (Currently Amended) A ~~simplified~~ metering pump comprising: (a) a main body-(4) having a first surface-(11), (b) first means for attachment to a bottle neck, (c) second means for attachment of a dip tube, (d) an inlet valve-(9), (e) a head-(5), where said head-(5) has a second surface-(13) facing said first surface-(11), and where said first surface-(11) and said second surface-(13) define a pumping chamber-(17), where said head-(5) is made from a material having elastomeric properties adapted to be resiliently deformed by a manually applied force and has an external actuation surface-(15) adapted to be deformed by a user's finger, and (f) a discharge valve-(43) at the outlet of said pumping chamber-(17), where said discharge valve-(43) ~~comprises~~includes a valve seat-(45) and a moving member adapted to move between a first position, corresponding to said closed discharge valve-(43) and in which said moving member contacts said valve seat-(45), and a second position, corresponding to said open discharge valve-(43), where said moving member extends from said head-(5) forming a partition-(41), where said moving member is integral with said head-(5), and where said first surface-(11) and said second surface-(13) are adapted to perform a relative movement therebetween causing the pumping of a liquid between said inlet valve-(9) and said discharge valve-(43), wherein when said moving member is in said first position, and there is a reduced pressure in said pumping chamber-(17), said reduced pressure then exerts a force pressing said moving member against said valve seat-(45).

2.- (Currently Amended) The pump of claim 1, wherein said partition-(41) is a flat surface.

3.- (Currently Amended) The pump of claim 1, wherein said partition-(41) is a cylindrical surface.

- 4.- (Currently Amended) The pump of claim 3, wherein said partition~~(41)~~ is a cylinder surrounding said second surface~~(13)~~.
- 5.- (Currently Amended) The pump of claim 4, wherein said valve seat~~(45)~~ is formed by a second also cylindrical partition~~(47)~~ disposed in said main body~~(1)~~, where said second partition (47) surrounds said first surface~~(11)~~.
- 6.- (Currently Amended) The pump of ~~any one of claims 1 to 5~~claim 1, wherein said second surface~~(13)~~ is convexly curved towards ~~the~~an outside of said pumping chamber~~(17)~~, ~~preferably~~and is a spherical cap.
- 7.- (Currently Amended) The pump of ~~any one of claims 1 to 6~~claim 1, wherein said first surface (11) has a concavely curved portion towards ~~the~~an interior of said pumping chamber~~(17)~~, ~~preferably~~and is a spherical portion.
- 8.- (Currently Amended) The pump of claim 7, wherein said curved portion and said second surface~~(13)~~ make contact in ~~the~~a limit of the stroke followed by said second surface~~(13)~~ during a pumping movement.
- 9.- (Currently Amended) The pump of ~~claim 7 or claim 8~~, wherein said curved portion has an external rim~~(51)~~ that is convex towards the interior of said pumping chamber~~(17)~~.
- 10.- (Currently Amended) The pump of ~~any one of claims 1 to 9~~claim 1, wherein said valve seat (45) has a rounded contact surface~~(53)~~ with said moving member.
- 11.- (Currently Amended) The pump of ~~any one of claims 1 to 10~~claim 1, wherein said moving member has a contact portion~~(55)~~ with said valve seat (45) having a thickness tapering down towards ~~the~~a free end thereof.
- 12.- (Currently Amended) The pump of ~~any one of claims 1 to 11~~claim 1, having at least one column~~(57)~~ on said first surface (11) extending towards said second surface~~(13)~~ and which is disposed at a portion proximate said discharge valve~~(43)~~.

13.- (Currently Amended) The pump of claim 12, wherein said at least one columns ~~(57)~~ have ~~has~~ a height such as to contact said second surface ~~(13)~~ when said second surface ~~(13)~~ is in the an extended position thereof.

14.- (Currently Amended) The pump ~~according to any one of claims 1 to 13, wherein it additionally comprises~~ of claim 1 further comprising: an attachment body ~~(3)~~ comprising ~~including~~ said first attachment means, where said attachment body ~~(3)~~ is attached to said main body ~~(1)~~ with the possibility of a ~~for~~ relative displacement between an open position and a closed position, and wherein said attachment body ~~(3)~~ comprises ~~includes~~ a projection which, when said attachment body ~~(3)~~ and said main body ~~(1)~~ are in the closed position, prevents said second surface ~~(13)~~ from performing said relative movement.

15.- (Currently Amended) The pump of claim 14, wherein said projection is a tubular stem ~~(27)~~ surrounding said inlet valve ~~(9)~~.

16.- (Currently Amended) The pump of claim 14 ~~or claim 15~~, wherein said projection is hermetically sealed against said second surface ~~(13)~~ when said attachment body ~~(3)~~ and said main body ~~(1)~~ are in said closed position.

17.- (Currently Amended) The pump of ~~any one of claims 14 to 16~~ claim 14, wherein said relative displacement is greater than said relative movement.

18.- (Currently Amended) The pump of ~~any one of claims 15 to 17~~ claim 15, wherein said main body ~~(1)~~ comprises ~~includes~~ a first annular lip ~~(31)~~ forming a hermetic seal with the outer wall of said tubular stem ~~(27)~~.

19.- (Currently Amended) The pump of ~~any one of claims 14 to 18~~ claim 18, wherein said main body ~~(1)~~ comprises ~~includes~~ a second annular lip ~~(37)~~ forming a hermetic seal with an annular partition ~~(35)~~ disposed in said attachment body ~~(3)~~, said annular partition ~~(35)~~ surrounding a ventilation hole ~~(33)~~.